

ABSTRACT OF THE DISCLOSURE

This invention relates to a high density architecture for an integrated circuit package (10) in which a plurality of circuit communication wafers (12) are disposed in a stack with a plurality of cooling plates (14) between them, and wherein circuit communication between the 5 communication wafers (12) is provided from wafer to wafer through the cooling plates (14). In addition, the communication wafers (12) may have integrated circuit chips (18) deposited on both sides of the wafer, and chip-to-chip communication may be provided from one surface of the wafer to another through the wafer. The resulting integrated circuit package may have any desired geometrical shape and will permit heat exchange, power and data exchange to occur in 10 three generally mutually orthogonal directions through the package.